In the claims:

Please cancel Claim 6, and amend Claims 1, 4, and 7 as follows:

- 1. (Currently amended) A modified α -glucosidase enzyme, the modified form differing from the wild-type barley α -glucosidase by proline being substituted for the threonine residue found in the wild-type sequence in the motif Val-Asn-Phe-Thr, the threonine located at residue 340, the modified enzyme retaining activity at a higher temperature than the wild-type enzyme.
- 2. (Original) A DNA sequence which encodes the expression of the enzyme of claim 1.
- 3. (Original) A transgenic host which expresses the DNA sequence of claim 2 to produce the modified barley α -glucosidase.
- 4. (Currently amended) A constructed DNA sequence including a protein coding region encoding a modified barley α -glucosidase enzyme, the modified barley α -glucosidase differing from the wild-type barley α -glucosidase by the presence of a proline residue at residue 340 in substitution for the threonine residue located in the motif Val-Asn-Phe-Thr in the wild-type protein.
- 5. (Original) A transgenic host which expresses the constructed DNA sequence of claim 4.
 - 6. (Canceled)
- 7. (Currently amended) A modified α-glucosidase enzyme, the modified enzyme differing from the wild-type barley α-glucosidase by an amino acid modification which confers thermal stability on the modified enzyme so that the modified enzyme retains enzymatic activity at a higher temperature than the wild-type enzyme, as claimed in claim 6 wherein the modification being is selected from the group consisting of adding a proline and removing an aspartate at residue 101, removing deleting an aspartate from residue 105, removing deleting an aspartate from residue 369, adding N-glycosylation site and removing

<u>deleting</u> an aspartate from residue 372, adding N-glycosylation site to residue 463, <u>removing</u> <u>deleting</u> an aspartate from residue 508, adding N-glycosylation site and <u>removing</u> <u>deleting</u> an aspartate from residue 694, and <u>removing</u> <u>deleting</u> an aspartate from residue 764.

- 8. (Original) A DNA sequence which encodes the modified α -glucosidase enzyme as claimed in claim 7.
- 9. (Previously Amended) A method of making a mutant form of the enzyme barley α -glucosidase comprising the steps of:
- (a) constructing a mutant gene sequence encoding a mutant form of the α -glucosidase enzyme;
 - (b) cloning the mutant gene sequence into an expression vector;
- (c) expressing the protein encoded by the expression vector to produce the protein encoded by the mutant gene sequence;
 - (d) recovering the protein produced; and
- (e) testing the protein for both α-glucosidase activity and for thermostability; wherein the mutant gene sequence encoding a mutant protein has at least one mutation selected from the group consisting of adding a proline and removing an aspartate at residue 101, removing an aspartate from residue 105, removing an aspartate from residue 369, adding N-glycosylation site and removing an aspartate from residue 372, adding N-glycosylation site to residue 463, removing an aspartate from residue 508, adding N-glycosylation site and removing an aspartate from residue 694, and removing an aspartate from residue 764.